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Committee on the Peaceful Uses of Outer Space

Report on the United Nations/China/Asia-Pacific Space Cooperation Organization Workshop on Space Law on the Role of National Space Legislation in Strengthening the Rule of Law

(Beijing, 17 to 20 November 2014)

I. Introduction

A. Background and objectives

1. International and regional cooperation in the peaceful uses of outer space helps to bring the benefits of space technology applications to a wide circle of stakeholders, both governmental and non-governmental, and to intensify and diversify national space programmes. Policy and regulatory frameworks at the national, regional and international levels are of paramount importance for providing the necessary basis for States, particularly developing countries, to meet development goals and address challenges to sustainable development. In this connection, it is necessary to continue to strengthen the linkages between international space law and the conduct of space activities.

2. Each year, the General Assembly, in its resolution on international cooperation in the peaceful uses of outer space, reaffirms the importance of international cooperation in developing the rule of law, including the relevant norms of space law, and urges States that have not yet become parties to the international treaties governing the uses of outer space to give consideration to ratifying or acceding to them, as well as incorporating them into their national legislation. National space laws and other regulatory frameworks are necessary for States to implement their obligations under the United Nations treaties and to meet their specific national requirements.

3. Given the growing number of benefits derived from space science and technology applications, space activities by States, intergovernmental and

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non-governmental entities, and the private sector continue to expand. In developing international and regional space cooperation, States should ensure that all actors conducting space activities comply with the requirements of international space law and that this branch of public international law properly reflects the needs of contemporary space activities.

4. The successful implementation and application of the international legal framework governing space activities depend on the understanding and acceptance, by policymakers and decision makers, of the legal framework governing the conduct of space activities. The presence of suitable professionals, particularly in developing countries, who are able to provide legal advice and disseminate information and knowledge relating to space law is therefore dependent on adequate opportunities for education in space law and policy.

5. In order to promote adherence to the five United Nations treaties on outer space and to assist States in building their capacity in space law, the United Nations, together with the Government of China, the Asia-Pacific Space Cooperation Organization (APSCO) and the China National Space Administration (CNSA), organized the Workshop on Space Law on the Role of National Space Legislation in Strengthening the Rule of Law, hosted by CNSA and held in Beijing from 17 to 20 November 2014.

6. The Workshop, among other things, addressed the rule of law and global governance of space activities; the development of space policy, transparency and confidence-building measures in outer space activities; perspectives on space-traffic management; space law and commercial space activities, including the operation of small and very small satellites; and national space legislation of both major spacefaring nations and emerging space nations. The Workshop also addressed mechanisms for regional and interregional cooperation, including intergovernmental organizations such as the European Space Agency (ESA) and APSCO, and the intergovernmental processes of the International Committee on Global Navigation Satellite Systems (ICG) and the International Space Exploration Forum (ISEF). The role of bilateral and multilateral agreements in joint space ventures was discussed. Capacity-building in and the teaching of space law were considered.

7. The Workshop welcomed the newly established Regional Centre for Space Science and Technology Education in Asia and the Pacific, affiliated to the United Nations, which is hosted by Beihang University in Beijing. The United Nations curriculum on space law was also examined. The Workshop concluded with a session dedicated to regulatory and institutional aspects of the use of space-derived data and information, with an emphasis on remote sensing and global navigation satellite systems (GNSS). The Beijing office of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) was involved in the planning and completion of that dedicated session, specifically, in order to provide a link between scientific, technical, administrative, institutional, legal and policy considerations.

8. The main objectives of the Workshop were:

(a) To promote understanding, acceptance and implementation of the United Nations treaties and principles on outer space;

(b) To promote exchange of information on national space legislation and policies for the benefit of professionals involved in national space activities;

(c) To consider the contribution of space law to economic and social development, and the use of space-derived geospatial data for sustainable development;

(d) To consider trends in and challenges to international space law;

(e) To consider mechanisms for increasing regional cooperation in the peaceful uses of outer space;

(f) To consider the development of university-level studies and programmes in space law, with a view to promoting national expertise and capacity in this field.

9. The Workshop was the ninth in a series of workshops organized by the Office for Outer Space Affairs of the Secretariat to build capacity in space law.

10. The present report was prepared for submission to the Committee on the Peaceful Uses of Outer Space at its fifty-eighth session and to its Legal Subcommittee at its fifty-fourth session, both to be held in 2015.

B. Attendance

11. The Workshop was attended by 133 people: legislators, Government officials, practitioners and educators holding positions in Government departments; representatives of space agencies, international organizations, national universities, research institutions and the private sector; and university students.

12. Invited speakers and participants from the following countries and from academic institutions in those countries contributed to the Workshop: Afghanistan, Argentina, Armenia, Australia, Austria, Azerbaijan, Bangladesh, Canada, China, Ethiopia, France, Germany, Indonesia, Iran (Islamic Republic of), Italy, Japan, Lao People's Democratic Republic, Mexico, Mongolia, Netherlands, Pakistan, Peru, Republic of Korea, Russian Federation, Sri Lanka, Thailand, Turkey, United Arab Emirates, United States of America and Venezuela (Bolivarian Republic of). Officials from the United Nations Institute for Disarmament Research and the Office for Outer Space Affairs also contributed to the Workshop.

13. Funds provided by the United Nations, the Government of China, CNSA and APSCO were used to cover the travel and living costs of 30 participants from the Asia-Pacific region selected on the basis of their experience and potential to influence the development of space law and policy, build capacity and promote education in space law in their countries.

C. Programme

14. The Administrator of CNSA, the Director of the Office for Outer Space Affairs, the Secretary-General of APSCO and an official of the National People's Congress of China opened the Workshop with introductory and welcoming statements. Two dedicated keynote addresses were given, on the concept of the rule

of law in outer space activities, and on the development of international space law: legal framework, objective and orientation.

15. The first session of the Workshop focused on developments in space law and policy. Presentations on the following topics were given:

(a) Space law treaties and "soft law" development;

(b) Development of space policy and its role;

(c) Role of transparency and confidence-building in promoting the rule of law in outer space activities;

(d) Perspectives on space-traffic management.

16. The second session was dedicated to space law and commercial space activities. Presentations on the following topics were given:

(a) Legal aspects of commercial space activities;

(b) Operation of small and very small satellites: the case of authorization, supervision and control, and registration;

(c) Legal issues related to satellite launch: perspectives of China.

17. The third session, on experiences and prospects in promoting national space legislation, focused on national legal frameworks governing space activities. The session comprised presentations and two panel discussions in which participants considered how national space laws and policies were developed. Presentations on the following general topics were given:

(a) General Assembly resolution 68/74, on recommendations on national legislation relevant to the peaceful exploration and use of outer space;

(b) Responsibility and liability for national space activities;

(c) Registration of space objects with the United Nations.

18. In that session, presentations were made on the national regulatory frameworks of Australia, China, Japan, the Russian Federation, the United States and of the States members of the European Union and ESA. The panel discussion on exchange of information on national regulatory frameworks comprised the following countries: Azerbaijan, Indonesia, Iran (Islamic Republic of), Pakistan, Republic of Korea and Thailand.

19. The fourth session focused on mechanisms for regional and international cooperation. Presentations were made on the following topics:

(a) International cooperation mechanisms on space activities: perspectives on the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space of the Legal Subcommittee;

(b) Role of APSCO and its legal structure;

(c) Role of bilateral and multilateral agreements in international space cooperation;

(d) The example of ESA;

(e) ICG and ISEF as mechanisms for cooperation.

20. The fifth session was dedicated to capacity-building in space law and education. The session comprised presentations on the following topics:

(a) Role of capacity-building in space law development at the national level from the perspective of China;

(b) United Nations curriculum on space law;

(c) Teaching of space law at regional centres for space science and technology education, affiliated to the United Nations: the case of the Beihang regional centre.

21. The session ended with a round-table discussion on ways and means of promoting education in space law, with participants from a number of universities, academic institutions and research institutes in the following countries: Australia, Austria, Canada, China, France, Japan, Republic of Korea and United States.

22. During the sixth session, regulatory and institutional aspects concerning the use of space-derived data and information were explored. Presentations on the following topics were delivered:

(a) Policies and practices relating to the use of space-based information for development and disaster management;

(b) International regulatory perspectives on Earth observation data: China's practice;

(c) Regulatory aspects concerning Earth observation: a brief survey of remote sensing law and policy around the world;

(d) Regulatory aspects of GNSS;

(e) Use of satellite data in international litigation: new developments and applications.

23. The papers presented at the Workshop are available on the website of the Office for Outer Space Affairs (www.unoosa.org) and will be published as proceedings of the United Nations/China/APSCO Workshop on Space Law (ST/SPACE/66).

II. Recommendations, observations and conclusions

24. The Workshop centred its discussion on the role of national space legislation in strengthening the rule of law to adequately address the complexity of regulatory mechanisms and policy development in space activities.

25. The Workshop structured its substantive work in closely interrelated sessions, looking first into developments in space law and policy, including discussions on space law treaties and the evolution of space law. This provided a sound basis for reviewing the legal aspects of commercial space activities and studying national space regulatory frameworks. The Workshop also considered various mechanisms for regional and international cooperation in space activities and, in particular, the role of bilateral and multilateral agreements. The Workshop further considered national and international capacity-building efforts addressing space law and policy.

26. In view of the important role played by space science and technology applications in meeting the global development goals, the Workshop assessed the regulatory and institutional aspects relating to the use of space-derived data and information for sustainable development, with particular emphasis on Earth observation and GNSS.

27. The Workshop made general observations on the concept of the rule of law in outer space activities and conducted a review of the objectives of international space law development. In that connection, the Workshop noted that, in view of the growing number of benefits derived from space science and technology applications, the conduct of space activities by States, intergovernmental and non-governmental entities, and the commercial and private sector, continued to expand rapidly and therefore needed attention from a national regulatory and policy development perspective.

28. The Workshop took note of General Assembly resolution 60/1, on the 2005 World Summit Outcome, in which the Assembly acknowledged that good governance and the rule of law at the national and international levels were essential for sustained economic growth, sustainable development and the eradication of poverty and hunger.

29. The Workshop acknowledged, in that context, that the General Assembly, in its annual resolution on international cooperation in the peaceful uses of outer space, reaffirmed the importance of international cooperation in developing the rule of law, including the relevant norms of space law, and urged States that had not yet become parties to the international treaties governing the uses of outer space to give consideration to ratifying or acceding to them, as well as incorporating them into their national legislation.

30. The Workshop assessed that space tools were increasingly fundamental for meeting the challenges to humanity and sustainable development, and that the overarching space security environment in its broader sense catered for global space governance. In that context, the successful implementation and application of the international legal regime governing the conduct of space activities therefore depended on the common understanding and acceptance by policymakers and decision makers of that legal framework.

31. In addressing those overarching perspectives, the Workshop explored legal and policy mechanisms, such as transparency and confidence-building measures and space traffic management tools, in order to build an understanding of various processes relevant to space policy development at the national and international levels. The Workshop assessed mechanisms used by States in implementing their rights and obligations under the United Nations treaties on outer space, as well as in their application of "soft law" instruments, such as principles, declarations, resolutions and other guidelines on space activities.

32. The Workshop noted that, with the evolution of space awareness in society, the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies had evolved as a unique common platform for strengthening the capacity of countries, in particular developing countries, in the use and application of space science and technology for sustainable development and in efforts to enhance the long-term sustainability of outer space activities for peaceful purposes.

33. The Workshop considered the importance of taking into account the special needs of the disadvantaged communities of the world to build their capacities in an expedient manner to enable them to fully exploit the benefits of space-based technology applications for their sustainable development needs.

34. The Workshop observed that the Committee had, in line with General Assembly resolution 68/50, on transparency and confidence-building measures in outer space activities, agreed on the importance of considering the broader perspective of space security and associated matters that would be instrumental in ensuring the safe and responsible conduct of space activities. The Workshop expressed appreciation for the decision of the Committee to consider at its session in 2015 the recommendations of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189) as they related to the safety of space operations and the long-term sustainability of outer space activities.

35. The Workshop recognized that outer space was a fragile environment where the steps taken by one actor might have an impact on others, including users of space services on Earth. In that sense, the broader application of space operations and the increased strategic value of space had resulted in a growing need to enhance the safety of space operations, the security of the space environment and space assets, and the long-term sustainability of outer space activities.

36. The Workshop assessed that, against the complex nature of space activities, with many actors at different levels and amid rapid technical developments, such as in space transportation and small and very small satellites, there was a need for consistency, predictability and stability in national legal frameworks governing space activities for the benefit of all actors.

37. The Workshop welcomed General Assembly resolution 68/74, on recommendations on national legislation relevant to the peaceful exploration and use of outer space, which provided a set of elements for consideration, as appropriate, by States when enacting regulatory frameworks for national space activities, in accordance with their national legal systems.

38. The Workshop conducted an overview of national policy and regulatory frameworks, legislative development and institutional mechanisms for space activities of a broad range of countries with different levels of national space activities. The Workshop noted that different approaches were taken by States to meeting their specific needs and practical considerations.

39. The Workshop observed that many national regulatory frameworks covered the main elements under General Assembly resolution 68/74. Those elements included the scope of space activities targeted by regulatory frameworks; national jurisdiction for regulating the space activities of governmental and non-governmental entities; procedures for the authorization and licensing of national space activities, including to ensure continuing supervision and monitoring of authorized space activities; registration of objects launched into outer space and establishment of national registries; liability and indemnification procedures; and procedures with regard to the change in status of the operation of a space object in orbit. The Workshop agreed that action could be taken by other States to cover those elements when developing national regulatory frameworks.

40. The Workshop examined the role of international intergovernmental organizations for space cooperation, such as ESA and APSCO, and other mechanisms of an intergovernmental nature, such as ICG and ISEF. The Workshop noted the high degree of international cooperation in space activities at the regional, interregional and international levels, and the increasing number of public-private partnerships between governmental and non-governmental entities in all areas of the space sector. International mechanisms for cooperation in space activities, such as bilateral and multilateral agreements, played an important role in identifying the legal grounds for space ventures, and could be of fundamental importance in the application and implementation of the international legal regime governing space activities.

41. In recognizing the increasing dependence on space science and technology applications in efforts to meet global development goals and targets, including within the context of the post-2015 development agenda process, the Workshop noted the importance of building spatial data infrastructure at the national and regional levels in order to enhance the capacity to access and use space-derived data and information for sustainable development. The establishment and strengthening of national spatial data policies, regulatory frameworks and infrastructure was crucial for the timely acquisition, effective utilization and proper sharing of satellite data, in particular to build resilience to mitigate the consequences of disasters.

42. The Workshop reiterated that capacity-building, training and education in space law were of paramount importance to further develop the practical aspects of space science and technology and to increase knowledge of the legal framework within which space activities were carried out. It was particularly important to bring together different space communities, as well as students and professionals, and enhance cross-sectoral dialogue, at both the academic and the practical level, including through innovative Internet-based educational tools.

43. The United Nations curriculum on space law was regarded as an important effort to further encourage space law studies at the regional centres for space science and technology education, affiliated to the United Nations and in universities and other academic and research institutions. The Workshop observed the importance of closer cooperation and dialogue between universities and institutions with established space law programmes and those educational institutions wishing to develop such programmes, as such cooperation could assist in overcoming the hurdles of limited access to materials and related costs, as well as language barriers.

44. The Workshop acknowledged the contribution by APSCO to capacity-building in space science and technology, as well as law and policy. The Workshop particularly welcomed the establishment of the Regional Centre for Space Science and Technology Education in Asia and the Pacific, affiliated to the United Nations, and based at Beihang University in Beijing, and noted with satisfaction the structuring of its academic programme to include space law training.

45. The Workshop expressed its deep appreciation to the Office for Outer Space Affairs and its UN-SPIDER office in Beijing, the Government of China, APSCO, and CNSA for the organization of the Workshop and for the excellent hospitality and conference facilities provided by CNSA.